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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,509

09/10/2004

Erwin Welbergen

APO32-04

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34758

7590

10/11/2006

JACK SHORE

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CHICAGO, IL 60606-1615

EXAMINER

VIDWAN, JASJIT S

ART UNIT

PAPER NUMBER

2182

DATE MAILED: 10/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/507,509	<b>Applicant(s)</b> WELBERGEN, ERWIN	
	<b>Examiner</b> Jasjit S. Vidwan	<b>Art Unit</b> 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 16-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 16-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

Claims 16-31 are pending (Claims 1-15 cancelled by Applicant)

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) The invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 16, 17, 18, 23, 28 and 30 are rejected under 35 U.S.C. 102(e) as being anticipated by Lignoul U.S. Pat. No: *[herein after Lignoul]*.

3. **As per claim 16 and 28**, Lignoul teaches a system for preventing the maintaining of a sustained cramped motionless position of a limb comprising:

(a) Element providing an input signal controllable by a user through interaction with a user's limb disposed adjacent said element **[Fig. 1A, Element 182]**

(b) Timing means **(timer)** for determining the length of time when a limb is present **[Col. 11, Lines 57-62]**

(c) Means coupling the input signal to the timing means such that the timing means is only started when no input signal is being generated **[Col. 8, Lines 34-40, Timer only starts when no activity is detected]**

(d) Reset every time an input signal is generated **[Col. 14, Lines 59-64, Timer is reset after detection of any movement of the mouse (182)]**

(e) Means for generating an alarm signal when said length of time exceeds a threshold value **[Col. 11, Line 62 – Col. 12, Line 6, "Signal," The 'Signal' that is output by the**

*microcontroller (112) upon the detection of a presence of user's limb in combination with inactivity is used to alert the initiator of other programs]*

4. **As per claim 17**, Lignoul teaches a system wherein there is included a sensor capable of detecting the presence of a limb placed on or over at least a part of said element [**Fig. 1A, element 105, "Proximity sensor"**]

5. **As per claim 18**, Lignoul teaches a system wherein alarm signal comprises a tactile signal [**Col. 11, Lines 62-65, Signal causes the mouse to move "one or more pixels"**]

6. **As per claim 23 and 30**, Lignoul teaches a system wherein the alarm signal comprises means for generating a visual signal [**Col. 8, Lines 37-42**]

7. Claims 26, 27 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Kehlstadt U.S. Pub No: 2002/0093481 [*herein after Kehlstadt*].

8. **As per claim 26 and 32**, Kehlstadt teaches a device for providing an input signal comprising an element controllable by a user by means of interaction with a user's limb, means for detecting activity of the user's limb [**Page 1, Paragraph 0011, "detecting the proximity of a user's hand to the housing"**] and means for generating an alarm signal if no user activity is detected after a period of user activity [**Page 1, Paragraph 0011, and "signal", The 'Signal' that is output by the microcontroller (112) upon the detection of a presence of user's limb in combination with inactivity is used to alert the initiator of other programs]**]

9. **As per claim 27**, Kehlstadt teaches a device wherein the configuration of the device is adapted to allow the means for detecting activity of the user's limb to detect the activity of a user's limb placed on or over at least part of the element [**Page 1, Paragraph 0011, "detecting the proximity of a user's hand to the housing"**], and means for communicating the signal representative of the detected activity to a controller configured to generate the alarm signal if no user activity is detected after a period of user activity [**Page 1, Paragraph 0011, and "signal", The 'Signal' that is output by the microcontroller (112) upon the detection of a presence of user's limb in combination with inactivity is used to alert the initiator of other programs]**]

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 19, 20 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lignoul and further in view of Serpa U.S. Patent No: 6,587,091 [**herein after Serpa**].

12. **As per claim 19 and 29**, Lignoul teaches the limitations of claim 18 and 28. However, Lignoul fails to teach a system wherein the element includes a member adjacent the limb and disposed adjacent the member is a motor operated eccentric mass that vibrates the member to provide the tactile signal. However, Serpa teaches the limitation wherein the element [see *Serpa*, **Col. 2, Lines 33-38**] includes a member adjacent the limb (mouse) and disposed adjacent the member is a motor operated eccentric mass [see *Serpa*, **Fig. 2a, element 11, 12**] that vibrates the member to provide the tactile signal [see *Serpa*, **Col. 1, Lines 31-34**].

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to combine the teachings of Lignoul with that of Serpa in order to take advantage of plurality of practical applications such as with computer systems intended for use by the vision or hearing impaired to game systems that enhance a user's experience through force feedback [see *Serpa*, **Col. 1, Lines 37-44**]. It is for this reason that one of ordinary skill in the art at the time of applicant's invention would have been motivated to combine Serpa's teaching with that of Lignoul in order to take advantage of numerous applications listed by Serpa [see *Serpa*, **Col. 1, Lines 37-44**].

**As per claim 20**, Lignoul as modified by Serpa above teaches a system wherein the element comprises a mouse housing and the motor operated eccentric mass is located within the housing to vibrate the housing, thus causing the tactile signal [See *Serpa* **Fig. 3a, elements 11 - motor, 19 - housing**].

13. **Claims 22 and 31** are rejected under 35 U.S.C. 103(a) as being unpatentable over Lignoul

In re Dailey, 357 F.2d 669, 149 USPQ 47 (CCPA 1966) where the court held that the configuration of the claimed disposable plastic nursing container was a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed container was significant. *\_(Particular type of alarm is significant)*

14. Lignoul discloses the claimed invention of claim 16 and 28 in addition to an alarm signal comprising means for generating a visual signal [**Col. 8, Lines 37-42**] and further a tactile signal [**Col. 11, Lines 62-65, Signal causes the mouse to move "one or more pixels"**]. However, Lignoul fails to teach a system wherein the alarm signal is an audible alarm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to select any known type of alarm signal as deemed suitable and would be well within the level of ordinary skill in the art in order to provide plurality of alarm methods. This is further demonstrated by applicant's various embodiments of the alarm signals as claimed absent persuasive evidence that the particular type of signal is significant.

15. Claims 21, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lignoul and further in view of Gould et al U.S. Patent No: 6,065,138 [herein after Gould].

16. **As per claim 21**, Lignoul teaches the limitations of claim 16, however fails to teach a system wherein the alarm signal has multiple settings whereby the nature of the alarm signal changes if the presence of the limb continues to be detected after the alarm signal has initially been generated. However, Lignoul teaches a system wherein the alarm signal has multiple settings whereby the nature of the alarm signal changes if the presence of the limb continues to be detected after the alarm signal has initially been generated. [See Gould, **Col. 2, Lines 13-20**].

One of ordinary skill in the art at the time of Applicant's invention would have clearly recognized the advantage of combining Gould's teaching with that of Lignoul in order to take advantage of the ability to provide safe working environment where by reducing the repetitive stress injury to the user by using increased level of alarm intensities. It is for this reason one of ordinary skill in the art would have been motivated to combine the two teachings in order to reduce the RSI injury to the user by using increased levels of alarm intensities [**Col. 1, Lines 14-17**].

17. **As per claim 24**, Lignoul teaches the limitations of claim 16. However, Lignoul fails to disclose a system wherein the system includes a risk profile defining unacceptable interaction between a limb and the controllable element and means for generating the alarm signal if the nature of the interaction conforms to the risk profile. However, Gould teaches a system that includes a risk profile defining unacceptable interaction between a limb and the controllable element [see Gould, **Col. 1, Lines 14-17**] and means for generating the alarm signal if the nature of the interaction conforms to the risk profile [see Gould, **Col. 2, Lines 13-20**].

One of ordinary skill in the art at the time of Applicant's invention would have clearly recognized the advantage of combining Gould's teachings with that of Lignoul in order to take advantage of preventing Repetitive stress injury (RSI) that can be caused by excessive typing and bad hand position among other activities [see Gould, **Col. 1, Lines 27-25**]. It is for this reason that one of ordinary skill in the art would have been motivated to combining Gould's teachings with Lignoul's disclosed invention in order to prevent unhealthy hand posture, which could cause RSI [see Gould, **Col. 1, Lines 27-25**].

18. **As per claim 25**, Teachings of Lignoul as modified by Gould above teach a system including means for compiling and storing a record of the interaction between the user-controllable element and the users limb and the generation of alarm signals over a period of time [see Gould, **Col. 2, Lines 13-20**].

#### ***Response to Arguments***

19. Applicant's arguments with respect to claims 16-25 and 28-31 have been considered but are moot in view of the new ground(s) of rejection. Applicant's arguments filed 5/2/2006 have been fully considered but they are not persuasive in reference to claims 26, 27 and 32. Applicant argues that prior art's "sleep mode" is not equivalent to Applicant's "alarm signal" and therefore prior art of reference fails to read on Applicant's claimed invention. However, Examiner believes that the Applicant had misunderstood rejection in previous office action and therefore would like to reword the rejection for better clarification. Examiner does not construe the sleep mode by itself to read on the "alarm signal", but instead the 'Signal' that causes activation or deactivation (as appropriate case may be) to be equivalent to Applicant's 'alarm signal.' It is therefore the position of the Examiner that prior art in fact still reads on the limitations of Claim 26, 27 and 32 appropriately.

**Conclusion**

20. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jasjit S. Vidwan whose telephone number is (571) 272-7936. The examiner can normally be reached on 8am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KIM HUYNH can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JSV  
9/25/2006

  
KIM HUYNH  
SUPERVISORY PATENT EXAMINER

9/29/06